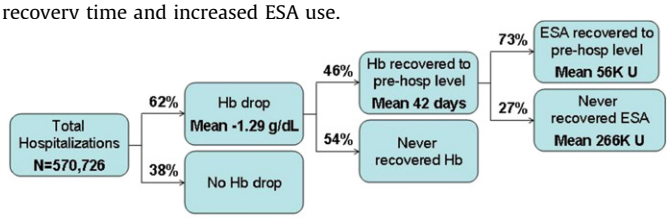
the remaining 27% who never returned to pre-hosp ESA dose, an additional 266K U of epoetin were utilized.

The majority of hospitalizations (~2/3) had considerable post-hosp Hb drops (mean > 1 g/dL), with > 50% permanently reduced. ~1.5 months were needed to recover Hb, with elevated ESA doses for > 2 months. ESA dose was permanently elevated in 27% of hospitalizations that recovered Hb. Strategies to address post-hosp anemia may mitigate the protracted recoverv time and increased ESA use.



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306

ESTIMATION OF PEGINESATIDE UTILIZATION REQUIRES PATIENT-LEVEL DATA

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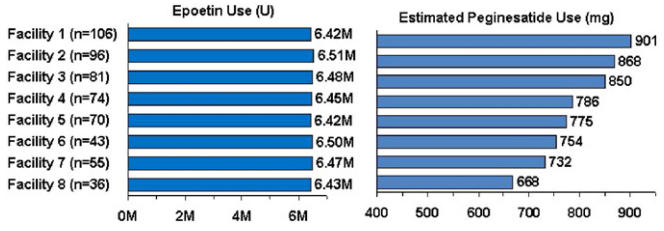
Post hoc analysis of two Phase 3 pivotal trials (EMERALD 1,2) of peginesatide vs epoetin for anemia due to chronic kidney disease in hemodialysis patients on stable epoetin showed that for increasing doses of baseline epoetin, relatively less peginesatide was needed to achieve similar Hb levels (Fishbane et al, ASN 2011). Estimation of peginesatide should therefore be dictated by underlying epoetin dose distribution rather than total volume or mean epoetin dose in a population. This analysis compared estimated peginesatide utilization for facilities using comparable levels of epoetin.

Eight facilities from a large dialysis organization whose epoetin utilization was within ± 1% of median utilization across all facilities from Q4 2011 were compared. The label-specified dose conversion table was used to convert weekly epoetin dose (defined using all pt-months with ≥ 1 dose) to monthly peginesatide dose for each facility

Comparison of total epoetin use (Q4 2011) from the 8 facilities showed relative differences of < 2% (range, 6.4-6.5M U). Facility utilization of post-conversion peginesatide was estimated to range from 668-901 mg, representing relative differences of up to 35% (Figure)

In contrast, calculations based on mean epoetin doses resulted in 41-184% overestimation of peginesatide use.

Due to the nonlinear dose relationship between peginesatide and epoetin, facilities with similar epoetin use (< 2% relative difference) had up to 35% difference in estimate of peginesatide use. For accurate estimation of peginesatide utilization, it is important to base conversions on epoetin dose distribution rather than mean epoetin dose.



http://dx.doi.org/10.1016/j.krcp.2012.04.630

307

EARLY AND LONG TERM BODY COMPOSITION EVOLUTION POST KIDNEY TRANSPLANTATION INFLUENCED BY THE PRE TRANSPLANT NUTRITIONAL CHARACTERISTICS: RESULTS OF THE CORPOS STUDY

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Many previous studies of renal transplant recipients have demonstrated that weight gain post kidney transplantation (KT) is frequent and may predispose to co morbidity. The aim of this prospective study was to evaluate changes in body composition (BC) during the first two years post KT and to determine predictors of these changes, with a special focus on pre KT parameters.

When listed for a KT, 41 patients (14 women - 27 men) were included between 2007 and 2008 in a longitudinal study of evaluation of BC. Fat Free Mass (FFM) and Fat Mass (FM) were estimated by Dual-energy X- ray absorptiometry. At the same time, Extra Cellular Water (ECW) was measured by bio impedance spectroscopy. Cellular Active Mass (CAM) was defined as FFM – ECW. Energy and protein intake (EI –PI), physical activity (PA), biochemical and nutritional parameters were also recorded. Patients were evaluated every 6 months before KT, and 15 days, 1, 3, 6, 12 and 24 months after KT. During the first 2 years post KT, FM increase 0.09 kg/month ($p=0.007$), FFM by 0.06kg/month ($p=0.0556$) and MCA by 0.04kg/month ($p=0.04$). Univariate analysis showed that during the first 30 days post KT, FFM is strongly influenced by male gender, higher BMI, higher PIbefore KT, higher PA before KT and lower CRP post KT. During the first 2 years, FFM evolution is associated with male gender, higher EI and PI post KT. Early post KT evolution of FM is related to high BMI and high cumulative dose of corticosteroids. Long term evolution is associated with EI and use of corticosteroids. Pre KT EI and PI, as well as male gender and BMI influenced significantly the early evolution of MCA. In adjusted analyses, BMI and gender remained independently associated with FM, FFM and CAM. Furthermore, higher FFM level was associated with higher EI.

We confirm that successful KT is associated with BC modifications; which can be detected very early post KT. These very early changes are strongly associated with energy, protein intake and physical activity level pre KT. Management of post KT weight gain should be anticipated with a special care on nutritional intake and physical activity in patients waiting kidney transplantation.

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308

RELEVANCE OF BIO IMPEDANCE SPECTROSCOPY FOR THE ESTIMATION OF BODY COMPOSITION IN DIALYSED AND KIDNEY TRANSPLANTED PATIENTS

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Bio impedance spectroscopy (BIS) is widely used in pathological situations to measure body composition. However, the results of BIS validation with reference methods are still contradictory, especially in medical situations where hydratation status is compromised. The aim of this study was to evaluate the accuracy of BIS to estimate fat free mass (FFM) and fat mass (FM) in dialysed patients using dual-energy X-ray absorptiometry (DXA) as a reference compared to the results obtained in the same patients two years after successful kidney transplantation.

When listed for a kidney grafting, 39 patients who consent were included in a longitudinal study of evaluation of body composition (CORPOS). FFM and FM were estimated by DXA and by BIS (Imp SFB7 Impedimed Pty Ltd. Queensland, Australia), both performed successively the same day. These measurements were repeated in the same patients 24 months after renal transplantation.

DXA and BIS measures of FFM and FM were highly correlated in dialyzed patients (DP) (respectively $r=0.909$ $p<0.001$ and $r=0.831$ $p<0.001$) and kidney transplant recipients (KTR) (respectively $r=0.934$ $p<0.001$ and $r=0.770$ $p<0.001$). The mean difference between DXA and BIS (Bland-Altman analysis) for FFM estimation was smaller in KTR (-0.3 +/- 4.9 vs 3.2 +/- 4.5 in DP), whereas difference did not reach significance for FM. Differences between upper and lower limits are important in all groups: -5 to 15.5 kg for FFM in DP; -10.2 to 8.8 kg for FFM in KTR; -11.6 to 6.8 kg for FM in DP and -9 to 14.9 kg for FM in KTR. Despite this individual variability, the whole body composition evolution after kidney transplantation is approached the same way by both methods.

DXA and BIS measurements were highly correlated in both DP and KTR. However, the large individual differences demonstrated that single values of FFM or FM may be interpreted carefully but BIS as DXA has ability to evaluate changes in body composition over time in longitudinal studies.

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